



insco

CORPORATION

MAIN STREET, GROTON, MASSACHUSETTS

INSTRUMENT DRIVE SYSTEMS • SPEED REDUCERS • GEARMOTORS

MULTI-SPEED CHANGER

Patent Number 2,642,756

FEATURES:

- Multiple speed transmission
- Positive, precisely repeatable output speeds
- Low cost
- Needs little space
- Dependable performance
- Quality spur gear train

The INSCO Multi-Speed Changer is a low-cost and simple transmission for instrument drive systems. This is the same mechanism as found in all other INSCO Step-Function Speed Reducers and INSCO Multi-Speed Gearmotors.

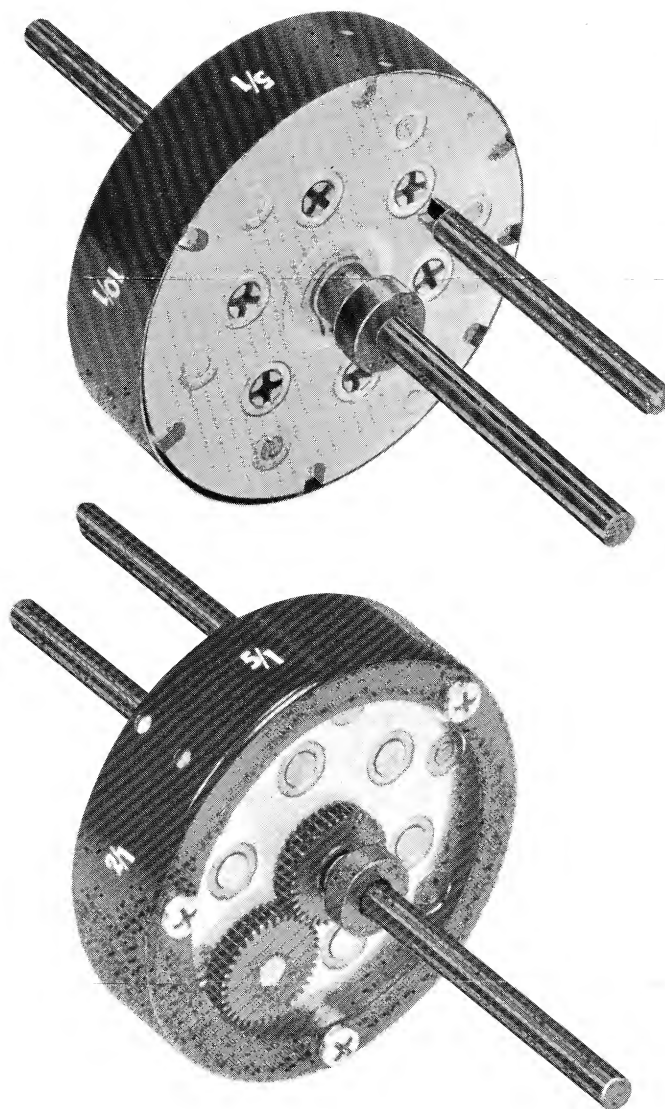
The basic mechanism is designed to provide low-cost, yet highly efficient transmission of multiple, precisely repeatable speeds. Because of its low cost, it is excellently suited for inclusion in your existing or new instruments, preferably at the design stage, for either prototype or large-volume production.

Your chassis can be utilized to support the rotary unit itself with its input-output drive. It operates quietly and in any position. Speed change is accomplished simply by manually pulling the rotary turret approximately 0.100" away from the output shaft, and rotating it to the desired output speed. It automatically re-engages when released.

All gears are steel spur gears, AGMA Class 9 or better, while all bearings are precision sintered bronze bearings. Lubrication is accomplished by a felt disc that is built-in, and additional oiling is required only every 60 days.

This compact rotary speed changer weighs very little and requires only little space. The photograph shows a complete unit with a cover assembly which is painted black with white numerals that indicate the ratio setting. This cover is optional. A panel shifting assembly (see drawing) is also available as an optional item.

The output shaft, furnished with each unit, is made from hardened drill rod $\frac{3}{16}$ " diameter and comes in 4-inch length as a standard.



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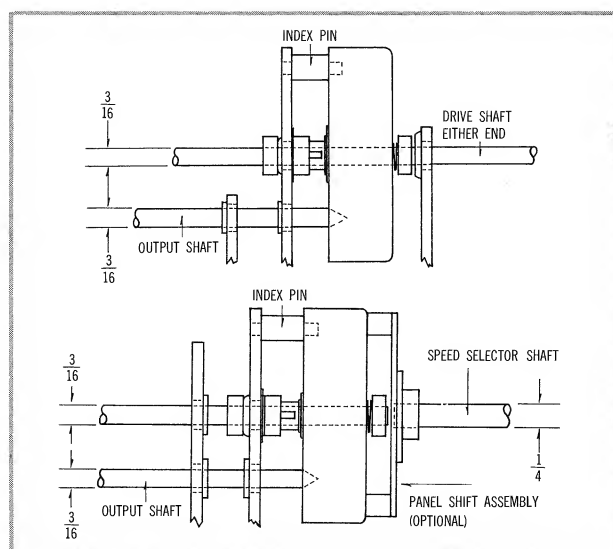
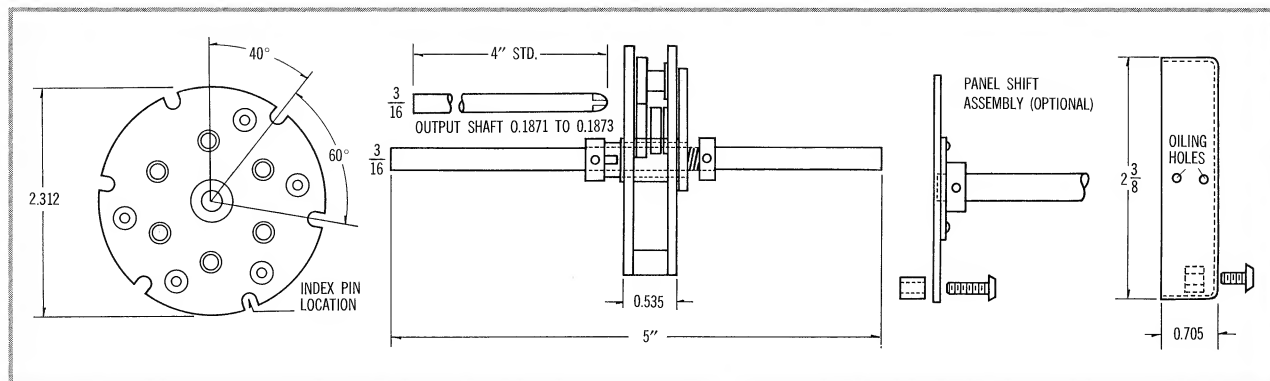


MAIN STREET, GROTON, MASSACHUSETTS
Phone 617-448-6369

MOUNTING METHODS

Mounting is very simple, but there are many methods of mounting possible. A few of the most common mounting arrangements are shown here as a guide. Please call us

if other suggestions are needed or modifications to the standard rotary speed changer are necessary.



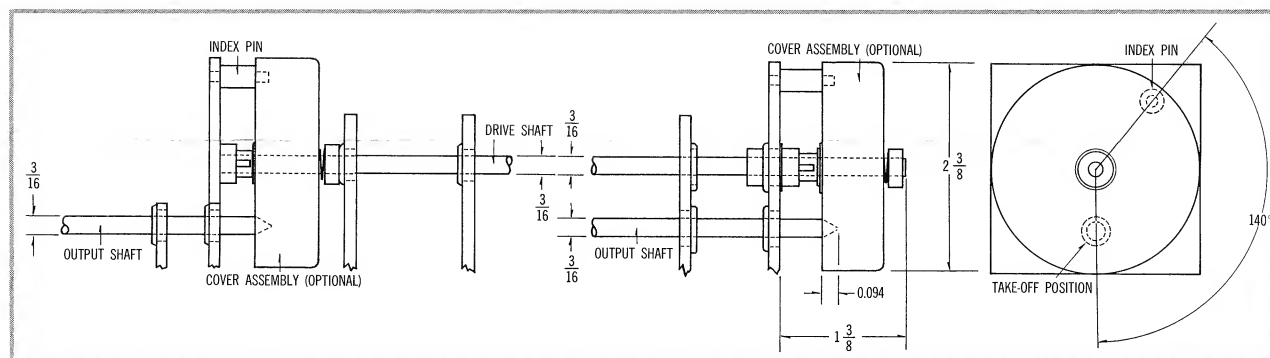
Four standard units are available to provide the following positive and precisely repeatable speed ratios:

Ratios	Model Number
1, 2, 5, 10, 20, 50 : 1	06750
1, 2, 4, 8, 16, 32 : 1	06751
1, 2, 4, 10, 30, 60 : 1	06752
1, 2, 6, 15, 30, 60 : 1	06753

Output ratios can be changed while the unit is in operation. The torque rating is 25 ounce-inches at 1800 RPM; maximum output-torque loads should not exceed 75 ounce-inches.

APPLICATION

These standard INSCO rotary speed changers are successfully used wherever positive transmission of various speeds is required, including laboratory recorders, chart drives, cameras, spectrometers, optical choppers, temperature programmers, scanning devices, tape drives, and many others.



This is just one of many standard INSCO products. We have comprehensive technical literature on instrument drive systems, speed reducers, and gearmotors. Write for your free catalog today.

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PRICE LIST EFFECTIVE MAY, 1965 COVERING STANDARD INSCO UNITS

INSCO STEP-FUNCTION SPEED REDUCERS (Bulletin 273)

Introduction of the new 00140 series INSCO Step-Function Speed Reducers requires the following new price list, applying to items described in our Bulletins 273 and 262.

LIST PRICE \$125.00 each

<u>Quantity</u>	<u>Unit Price</u>	<u>Models</u>
1 - 4	\$125	00140 through 00146
5 - 9	119	and
10 - 24	113	00104 through 00109
25	110	

Models 00130 through 00134 are replaced by the above 00140 series and will be shipped only on special order.

MOTOR MOUNT KITS, Model Series 07400 (Bulletin 302)

LIST PRICE \$18.00

INSCO MULTI-SPEED GEARMOTORS, manually shifted style (Bulletin 300)

The following prices apply to all standard models of the INSCO Multi-Speed Gearmotor, manually shifted style, as described in INSCO Bulletin 300.

LIST PRICE: Models 06700 and 06701 - \$150 each
Models 06710 and 06711 - \$165 each

NOTE: Models 06700 and 06710 have ratio series 1, 2, 5, 10, 20 and 50:1
Models 06701 and 06711 have ratio series 1, 2, 4, 8, 16 and 32:1

<u>Quantity</u>	<u>OEM Prices, 06700</u>	<u>OEM Prices, 06710</u>
1 - 9	\$120	\$135
10 - 24	110	125
25 - 49	105	120
50 - 99	100	115
100 - 249	99	114
250 - 499	97	112

INSCO MULTI-SPEED GEARMOTOR, electrically shifted style (Bulletin 301)

The following prices apply to all standard models of the INSCO MULTI-SPEED GEARMOTOR, electrically shifted style, as described in Bulletin 301.

LIST PRICE: 2 Speed Series, \$120 each. 4 Speed Series, \$150 each.

<u>Quantity</u>	<u>OEM Prices, 2 speed</u>	<u>OEM Prices, 4 speed</u>
1 - 9	\$99	\$120
10 - 24	92	110
25 - 49	88	105
50 - 99	85	100
100 - 249	83	99
250 - 499	80	97

MODEL 06750 and 06751 ROTARY SPEED CHANGER (Includes dial) (Bulletin 306)

LIST PRICE: \$55.00 each

<u>Quantity</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Unit Price</u>
1 - 9	\$45	100 - 249	\$29
10 - 24	39	250 - 499	28
25 - 49	35	500	27
50 - 99	32		

Add \$3.50 each for Panel Shift Option; no charge @ 500 quantity.

INSCO MULTI-SPEED CHART DRIVES

All models of the INSCO Multi-Speed Chart Drive for use with Brown, Bristol, General Electric and Wheelco single point recorders are priced at \$125 each. The INSCO Multi-Speed Chart Drive for use with the Brown multi-point recorder, requiring an additional replacement Print Crank Arm, is priced at \$140 each. The INSCO Multi-Speed Chart Drive for use with the Bristol Dynamaster two-pen recorder, requiring a replacement chassis hinge bracket, is priced at \$140 each.

The INSCO Multi-Speed Chart Drive for use with the Leeds and Northrup strip chart recorder is available only from the Leeds and Northrup Company.

INSCO DUO-SPEED CHART DRIVES

All standard models of the INSCO Duo-Speed Chart Drive for use on Brown, General Electric and Wheelco recorders are priced at \$108 each.

INSCO DRIVE-PAC (Bulletin 303)

LIST PRICES: Drive-Pac using size 25 frame motor - \$196.55
Drive-Pac using size 29 frame motor - 227.50

INSCO STEP-FUNCTION SPEED REDUCER $\frac{1}{4}$ HP Range-Model Series 06850 (Bulletin 307)

Model 06851 -- Ratios of 1, 2, 5, 10, 20, 50, 100, 200, 500 and 1000:1

Model 06853 -- Ratios of 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10:1

Model 06854 -- Ratios of 1, 2, 3, 4, 5, 10, 20, 30, 40 & 50:1

Model 06856 -- Ratios of 1, 2, 4, 8, 16, 32, 64, 128, 256 & 512:1

LIST PRICE - \$595.00 each. Consult factory for OEM quantity prices.

INSCO "N" MOTOR Model Series 07300 (Bulletin 304)

LIST PRICE - \$84.50 each, all speeds.

OEM QUANTITY PRICES:

1 - 9 units @ 78.00 each	50 - 99 units @ 70.50 each
10 - 24 units @ 75.00 each	100 - 249 units @ 67.50 each
25 - 49 units @ 73.00 each	250 - 499 units @ 65.50 each

INSCO MECHANICAL DIFFERENTIALS - Model Series 07600 (Bulletin 308)

Price of complete unit equals price of basic differential plus price of any two appropriate end gears. No charge for assembling end gears.

	Model 07601 (72 DP)	Model 07602 (64 DP)	Model 07603 (48 DP)	Model 07604 (32 DP)	Model 07605 (20 DP)
OEM QUANTITIES	List Price \$25.00	List Price \$25.00	List Price \$26.00	List Price \$28.00	List Price \$35.00
1- 9 units	23.00	23.00	24.00	26.00	33.00
10- 24 units	21.00	21.00	22.00	24.00	31.00
24- 49 units	19.50	19.50	20.50	22.50	29.50
50- 99 units	18.00	18.00	19.00	21.00	28.00
100-249 units	17.00	17.00	18.00	20.00	27.00
250-499 units	16.00	16.00	17.00	19.00	26.00

END GEARS	Teeth	Teeth	Teeth	Teeth	Teeth
	36 @ .85	36 @ .75	30 @ .85	24 @ 1.05	20 @ 1.95
	40 .95	40 .85	32 .90	32 1.45	24 2.25
	48 1.05	48 .95	36 1.00	36 1.75	30 2.55
	50 1.10	50 1.00	40 1.10	40 1.95	35 2.60
	54 1.20	54 1.10	48 1.20	48 2.20	40 2.70
	60 1.25	60 1.15	50 1.30	64 2.45	50 2.90
	70 1.30	70 1.20	54 1.35	72 2.90	60 3.95
	72 1.40	72 1.30	60 1.50	80 3.45	
	80 1.60	80 1.50	70 1.60	96 3.90	
	90 1.70	90 1.60	72 1.70		
	96 1.80	96 1.70	80 1.90		
	100 2.00	100 1.90	90 2.00		
	110 2.10	110 2.00	96 2.10		
	120 2.20	120 2.10			
	130 2.40	130 2.20			

INSCO Multi-Decade Box, Model Series 06505 (Bulletin 310) LIST PRICE \$850.00

PRICES FOR ALL THE ABOVE UNITS ARE F.O.B., GROTON, MASS., NET 30 DAYS

Shipment is generally made via UPS or Insured Parcel Post unless otherwise instructed.

INSCO SALES OFFICES

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Main Street
Groton, Mass. 01450
Area 617 448-6369

F. A. MacPherson Company
526 North Avenue
P.O. Box 421
Westfield, New Jersey
Area 201 233-4010

A.G. Erickson Associates
3315 No. Harlem Avenue
Chicago, Illinois 60634
Area 312 777-8070

Republic Supply Co. of California
1919 Williams Street
San Leandro, California 94577
Area 415 357-2211

Minarik Electric Company
224 East Third Street
Los Angeles 13, California
Area 213 624-3161

INSCO STOCKING DISTRIBUTORS

MacPherson Control Products, Inc.
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P. O. Box 421
Westfield, New Jersey
Area 201 233-4010

Republic Supply Co. of California
1919 Williams Street
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